

Serial No.: 10/553,085  
Docket No.: 09792909-6376  
Amendment dated July 24, 2009  
Reply to the Office Action of April 24, 2009

## **REMARKS**

### **A. Introduction**

Claims 1-6 were pending and under consideration in the application.

In the Office Action mailed April 24, 2009, claims 1, 4, 5, and 6 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting with respect to U.S. Application No. 10/085207.

Claim 4 was rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter.

Claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuchiya, US Pub no. 2001/0038716 (hereinafter, "*Tsuchiya*") in view of Nakajima, U.S. Pub no. 2004/0008902 (hereinafter, "*Nakajima*").

In response, Applicants seek to cancel claim 4 to obviate the 35 U.S.C. §101 rejection, and to cancel claim 6, which was identical to claim 5. No new matter is being added.

Applicants submit that the Examiner should enter the offered amendment, because the amendment places the case in condition for allowance. 37 CFR §1.116; MPEP 714.12, 714.13.

### **B. Double Patenting**

Claims 1, 4, 5, and 6 were provisionally rejected on the grounds of nonstatutory obviousness-type double patenting with respect to U.S. Application No. 10/085207.

An appropriate response to such a rejection is to file a terminal disclaimer in the application with the second to be allowed claims. Subsequent to the Office Action, U.S. Application No. 10/085207 issued as US Pat. No. 7,558,435. Accordingly, Applicants are herewith filing an appropriate terminal disclaimer with respect to US Pat. No. 7,558,435.

**C. Rejections under 35 U.S.C. §103(a)**

Claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Tsuchiya* and *Nakajima*.

*Tsuchiya* discloses techniques for image processing to improve the contrast and the sharpness of an image. According to *Tsuchiya*, a nonlinear smoothing filter smoothes image data while conserving the edges of the image data, and then sends the resulting smoothed image data to an  $\varepsilon$ -filter. The  $\varepsilon$ -filter compares the absolute value of a difference between a pixel value  $x_n$  of a central pixel  $p_n$  and the pixel value  $x_{n-k}$  of a pixel  $p_{n-k}$  with a threshold value  $\varepsilon$ . When the absolute value of the difference is smaller than the threshold, the  $\varepsilon$ -filter uniformly smoothes the image treating the central pixel  $P_n$  as the center. When the absolute value of the difference is larger than the threshold value, however, the  $\varepsilon$ -filter performs smoothing with only pixel values of the vicinity of the pixel value  $x_n$ , ignoring the pixel value  $x_{n-k}$ . *Tsuchiya*, paragraphs 32-34.

The Office Action admitted (page 6) that *Tsuchiya* fails to teach or suggest "and another neighboring signal, the two neighboring signals arranged symmetrically".

Additionally, *Tsuchiya* does not teach or suggest averaging by weight the signal of attention and the predetermined neighbouring signals, using the level of the signal of attention instead of the level of each of two neighbouring signals for which flags are raised, where the two neighbouring signals are arranged symmetrically with respect to the signal of attention, as previously presented in each of independent claims 1 and 5.

*Nakajima* fails to cure the foregoing deficiencies. *Nakajima* relates to image noise reduction techniques to be used to digitize and process an image signal. Level values of peripheral pixels and the level value of a watched pixel are input into eight comparators and the value "1" is output when absolute values of differences between the level values are smaller than the value of a reference level. The value "0" is output when absolute values of differences between the level values are greater than the value of the reference level. For two pixels symmetric about a watched pixel (signal of attention), if the difference for either subtraction

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calculation is greater than theta (threshold value), "0" is output from the comparator and both pixels are invalidated. *Nakajima*, paragraph 0033.

Thus, *Nakajima* also fails to teach or suggest averaging by weight the signal of attention and the predetermined neighbouring signals, using the level of the signal of attention instead of the level of each of two neighbouring signals for which flags are raised, where the two neighbouring signals are arranged symmetrically with respect to the signal of attention.

As shown above, *Nakajima*, if anything, teaches away from the foregoing feature because, rather than "using the level of the signal of attention instead of the level of each of two neighbouring signals for which flags are raised", *Nakajima* simply invalidates (zeros out) certain pixel signals. The Office Action asserted that *Nakajima* discloses neighboring signals arranged symmetrically. Whether or not this is true "[a] prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." MPEP 2141.02 VI, emphasis in original, citing W. L. Gore & Associates, Inc., v. Garlock, Inc., 721 F. 2d 1540 (Fed. Cir. 1983), cert. denied 469 U.S. 851 (1984).

Because the aforementioned feature is not taught or suggested by the cited prior art, the Office Action fails to establish that the invention as a whole is obvious in light thereof. See MPEP 2143.03. "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F. 2d 1382, 1385 (CCPA 1970).

As a result, independent claims 1 and 5, and claims depending from claim 1, claims 2 and 3, are patentable over the combination of *Tsuchiya* and *Nakajima*.

#### **D. Conclusion**

In view of the foregoing, it is submitted that claims 1-3 and 5 are allowable and early notice to that effect is respectfully requested.

If the Examiner believes that, for any reason, direct contact with Applicant's attorney would help advance the prosecution of this case to finality, the Examiner is invited to telephone

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the undersigned at the number given below, for purposes of arranging for a telephonic interview.  
Any communication initiated by this paragraph should be deemed an Applicant-Initiated Interview.

If any further fees are required in connection with the filing of this amendment, please charge the same to our Deposit Account No. 19-3140.

Respectfully submitted,

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